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ABSTRACT

The concept of Zero-Base Budgeting (ZBB) is discussed in terms of its application, advantages, disadvantages, and implementation in an effective planning, management, and evaluation (PME) system. A ZBB system requires administrators to: review all programs and expenditures annually, set clear cut goals, and analyze all possible alternatives for developing programs. Advantages of ZBB include: programs and expenditures are reviewed annually; a cost-conscious staff is developed; new approaches are easier to add; professional development is increased; and a more confident justification of the budget is created. Disadvantages include: increased paperwork; increased staff time; difficulty in developing and ranking decision units and packages; and little motivation for staff. Implementation of a successful ZBB process entails developing a plan, defining the system, designing proper forms, educating the staff, using expert help, using the first time through as a trial, providing resources for cost estimates, and allowing proper time for implementation. Decision units and decision packages, which involve programs, activities, or cost centers, are considered as the basic elements of a ZBB system, and reasons why ZBB's fail are noted. Appendices contain a list of decision units, sample forms, and a bibliography. (MB)

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Zero-Base Budgeting

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ZERO-BASE BUDGETING

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I. INTRODUCTION TO ZERO-BASE BUDGETING

This monograph is another in the series, prepared for the Advanced Institutional Development Program (AIDP), which focuses on major topics of importance to those who have AIDP grants. The following monograph focuses on the topic of Zero-Base Budgeting (ZBB), a management system which has received much attention in recent months and which can play a significant role in the implementation of an effective planning, management, and evaluation (PME) system. The latter, of course, is one of the requirements of the Advanced Institutional Development Program. In this monograph we will attempt to explain what Zero-Base Budgeting is, the advantages and disadvantages of its use, its relationship to other management systems, the opportunities for implementation, and the accompanying problems. Additionally, we will present references should the reader wish to continue his study of the subject.

Zero-Base Budgeting has become an extremely popular management system in recent years -- largely because it is being espoused by President Jimmy Carter. On April 19, 1977, a directive issued from the Office of Management and Budget of the U.S. Government to the heads of the executive departments and establishments of the Federal Government which mandated the use of ZBB in all areas of the Federal Government. President Carter, in a memorandum dated February 19, 1977, asked each agency head to develop a ZBB system to be used in preparation for the 1979 Federal budget. Earlier, during the presidential campaign, he had promised the American people to implement a ZBB system should he be elected to the presidency. As governor of the state of Georgia he had implemented a ZBB system and was convinced that it was a management tool that could be effectively used in the Federal Government.

The history of Zero-Base Budgeting is a rather brief one since it is a relatively new concept. The first person given credit for using the term Zero-Base Budgeting is Arthur Burns, former chairman of the Federal Reserve Board. In a speech in New York on December 2, 1969, Arthur Burns said, in effect, that one of the real problems with the Federal budget was the fact that each year Washington simply started with all the old programs, added new programs plus an inflationary factor, and kept building onto what had gone before. He suggested that what the government needed to do was examine everything that had been done before in the way of establishing programs and expenditures and, in so doing, they should be able to reduce many of the vestigial programs and expenditures which were no longer needed or appropriate. He indicated that he felt the Federal Government should start from a zero base in its planning and budgeting.

As far as the earliest implementation of Zero-Base Budgeting systems goes, there was a reported attempt to use some ZBB concepts in the United States Department of Agriculture in the early 1960's. However, that project, which by the way was unsuccessful, was really not a full-blown attempt to use ZBB as we know it today.

The person credited most often with the first successful use and development of ZBB is Peter Pyhrr. Pyhrr developed a Zero-Base Budgeting system at the Texas Instruments Company in Dallas, Texas in the late 1960's. He then wrote an article for the Harvard Business Review stating the basic principles and applications of Zero-Base Budgeting. President Carter, then governor of Georgia, read the article and invited Peter Pyhrr to come to Georgia to talk about Zero-Base Budgeting. On the basis of their discussion, Pyhrr was asked to come to Georgia to help the state implement ZBB. The system was first applied in the 1972-73 budget year in Georgia. Reports on the benefits of the implementation have

been mixed, which we will discuss at a later point. Yet, since the first successful use of the ZBB concept in the early 60's and 70's, the system has spread rapidly throughout the corporate world as well as the public sector. Today, many states, cities, colleges, and other public service organizations are implementing Zero-Base Budgeting.

No new management system has developed as rapidly as has Zero-Base Budgeting. It is interesting to note that ZBB is one of a growing list of management systems that have been applied by new presidents at the Federal level. The first one to be applied was the Planning, Programming, and Budgeting System (PPBS), which was developed by Robert McNamara in the Defense Department and adopted by President Lyndon Johnson as he attempted to implement a management system throughout the Federal Government. PPBS, which will be discussed later, was never fully successful, though in some agencies it was applied with some benefit. The next major management system to be applied to the Federal bureaucracy was Management by Objectives (MBO), brought to the White House when President Nixon was elected. MBO is a management system developed in the private sector and brought to the public by corporate executives who came to the Federal Government with the Nixon group. They felt they could manage the Federal bureaucracy through this device, but MBO was not effectively applied as a management system either.

Significantly, each of the major management systems that has been applied to the Federal Government has not been successful. Each one, however, has left a residue of effective users and each has contributed to more effective management planning, budgeting, and evaluation. If one were to study this aspect of the Federal Government, one would find that there are pockets and agencies which are using the principles and systems of PPBS and MBO effectively.

Zero-Base Budgeting is the newest system and it will be years before the full impact and value of its use is known. *Table I.1* will provide the reader with a variety of comments that have been made by some of those states and corporations that have recently attempted to apply the concept.

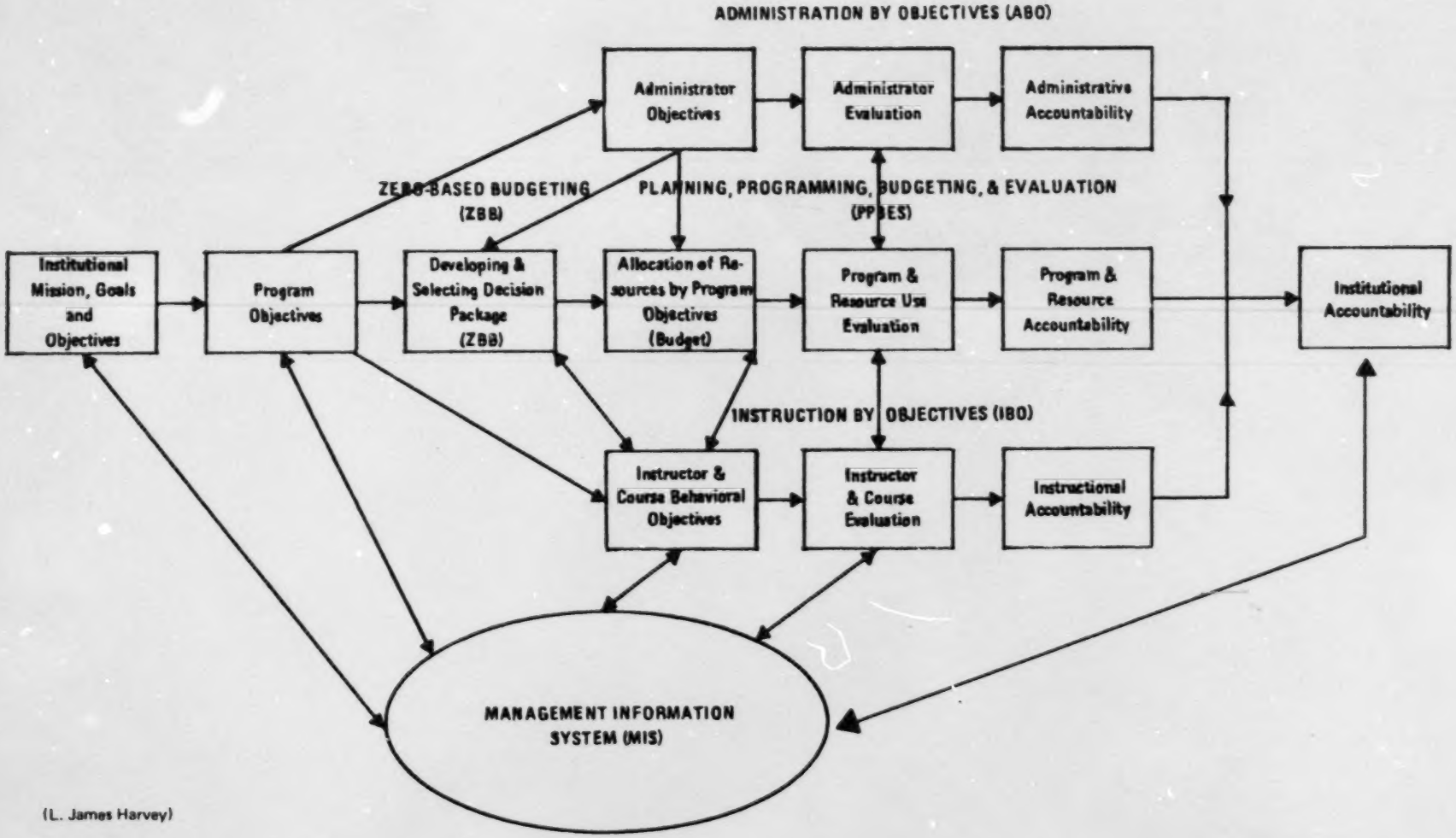
Zero-Base Budgeting is really a budget planning system, as we shall see in the following discussion. It represents an attempt to provide the administrator and manager with the tools and techniques both to gather data on resource allocation and to run an effective cost-benefit analysis of the various alternatives available to their organization, as they study the allocation of their resources in terms of their goals and objectives. ZBB, in one sense, is not a total management system such as a Management by Objectives, or a Planning, Management, and Evaluation system (PME); rather, it is a planning system for budget allocation. In this sense, ZBB will work effectively only if it is coupled with a broader PME or MBO system, which allow for the establishment of the organizational mission, goals, objectives, and priorities. These systems provide the backdrop against which the ZBB techniques can be used and applied. *Table I.2*, "ZBB and the Systems Approach to Higher Education," will help the reader to see how ZBB relates to other management systems which can be used in higher education. Application of all of these systems simultaneously allows an institution to manage itself effectively through what has come to be called the "systems approach." In the AIDP program this is sometimes called Planning, Management, and Evaluations. *Table I.3* indicates the needs met through the systems management approach and the particular elements which have a significant relationship to the Zero-Base Budgeting approach.

In order to understand the advantages and disadvantages of Zero-Base Budgeting, we need to stop for a moment and take a look at some of the problems we have had in the past in higher education in the budgeting area. First of all, we have allowed the budgeting process to become the de facto planning process. In the past most of our institutions have

TABLE I.1
ASSESSMENTS OF ZERO-BASE BUDGETING

NEW JERSEY	"... STATE BUDGET DROPPED 3% IN THE FIRST YEAR."
GEORGIA	"... GREAT FOR MANAGEMENT'S DECISION-MAKING ... I CAN UNDERSTAND WHAT HAPPENS DEEP IN A DEPARTMENT" (GOV. JIMMY CARTER)
INDIANA	"... CONSIDERED IT AND REJECTED IT!"
FIRESTONE TIRE	"... AN OLD IDEA DRESSED UP IN A NEW NAME."
FORD MOTOR CO.	"... SAVED MILLIONS OF DOLLARS."

TABLE I.2
ZBB AND THE SYSTEMS APPROACH TO HIGHER EDUCATION



(L. James Harvey)

TABLE I.3
NEEDS MET THROUGH SYSTEMS MANAGEMENT

1. Organizational mission, goals, and objectives are clarified.
2. Programs are related to goals and objectives.
3. The organization focuses on quantifying "outcomes" and evaluation.
*4. Planning is built into the operation of the institution.
*5. Resources are allocated more effectively and priority setting is easier.
*6. Management information is systematically available in an organized and useful format.
7. Administrative effort is effectively focused on institutional goals and objectives. Wasted effort is reduced.
8. Administrators are objectively evaluated.
*9. Information is available for reporting to the board and constituency.
10. Administrators have freedom to operate within clearly defined areas.
*11. Organizational accountability is established.
12. Feedback is available at all levels of the organization.
*13. Communication is facilitated and misunderstandings reduced.
*14. Authority and accountability are delegated to lower levels of the organization in a systematic way.

*These are elements where a Zero-Base Budgeting System can make significant contributions.

not had well developed, finely delineated plans. Most had master plans or long-range plans and some even had short-range plans, but few of these plans were ever converted into specific detailed goals and objectives with a clearly defined list of priorities, by which institutional resources could be allocated. Even when those few institutions developed the latter type plans, they were frequently developed after the budget process had been completed, thereby negating the opportunity to allocate their resources according to their objectives.

In recent years, we have come to realize that the only way to effectively allocate resources is to handle the planning *before* that final budgeting process occurs. In the past, the budgeting process became the focal point of planning at that point when the institution simply could no longer procrastinate. By law, in most cases, institutions had to put together a budget. That meant that they had to allocate resources according to some format to complete the process, and in turn a number of decisions had to be made as to where money would be placed. This process forced the institution to do some planning, albeit crisis, spur-of-the-moment planning in most cases. We have come to realize that there are superior ways of carrying out the budget process, viz., it is only after a thorough, detailed planning process has been completed that resouces can be allocated effectively.

The second major problem we have had in the past relates to cost benefit analysis. Most of our budgets in higher education have been line-item budgets. In essence, we budgeted our funds in accordance with various line-items, such as salary, travel, equipment, contracted services, etc. There were usually some broad cost centers under which these line-items would appear. The cost centers and the line-items, however, often did not conform to programs or unified activities that had specific goals and objectives. This made it almost impossible to determine whether any particular program or activity was being efficiently and effectively carried out. It also made it impossible to tie resources to benefits.

As an outgrowth of these problems some new budgeting systems were developed. The first one was program budgeting (PPBS), which, stated simply, is a method of developing a financial plan around a systematic consideration of goals and objectives of specifically defined programs. In a PPBS budget an institution will clearly define its programs, lay out the goals, objectives, and outcomes expected in each program, and then allocate resources so that the resources and programs correspond and the outputs of the program can be studied and related directly to the appropriations designated in the budget. Past PPBS efforts frequently left out the latter activity, the evaluation component, which should be an essential part of the process. If carried out, the outputs of the program can be evaluated and linked back to the resources allocated and in turn that information can be cycled into the next budgeting process in a continual refinement cycle, so that the institution can be assured of getting the maximum value for the dollars expended.

Zero-Base Budgeting is very clearly linked to PPBS, as we will discuss shortly. It, too, must be used within the framework of the setting of goals and objectives and relating them to specific program activities and functions the institution intends to accomplish. It should be noted parenthetically, however, that PPBS and ZBB should not necessarily rule out the use of line-items in a budget. Rather, when line-items are used, they should function within the framework of a program, the decision unit, and the decision packages of the Zero-Base Budgeting system.

Another budgeting problem which has lead to the development of the Zero-Base Budgeting system is the fact that educational institution budgets have tended

to be incremental, developed, in effect, by simply adding variables to the previous year's budget. In short, each new year's budget usually was accomplished by merely adding some new people or programs and anticipating an incremental inflation factor. These items added to the last year's budget, and perhaps some minor modifications of expenditures in other areas became the new budget.

In more recent years, the term "decremental budgeting" has become known. This concept is simply the reverse of incremental budgeting. As budgets have ceased growing , inflation has increased, and enrollments have dropped, many of our institutions have found that they have had to reduce budgets. Decremental budgeting means that the previous year's budget is reduced by a set percentage. Incremental and decremental budgets are thus budgets that are simply increased or decreased by set units, usually a percentage based on the available funds. This kind of budgeting has prompted much criticism and the claim that these approaches in fact leave a vast amount of monies unscrutinized from year to year; programs which are oudated, inefficient, or ineffective continue to be a part of the budgeting process simply because they have been justified some time in the past. The justification has established a history, which also supports their existence. A more objective history proves that educators are quick to add programs and costs, but very slow to delete any.

This whole process has led many experts in education and budgeting to affirm that millions of dollars are wasted each year on ineffective, inefficient, and unscrutinized programs. This in turn has persuaded many that Zero-Base Budgeting is a tool that can effectively be used in higher education. In an effective ZBB system, all programs and elements of the budget are examined each year. *Table I.4* is an attempt to depict the difference between Zero-Base Budgeting and incremental budgeting.

In summary, Zero-Base Budgeting is a new budget planning system which attempts to help institutions improve on their previous resource allocation systems. A ZBB system requires administrators to: review all programs and expenditures annually; set clear cut goals and objectives for the programs and activities that are intended for implementation; and, finally, analyze all the possible alternatives for providing these programs and activities to form the decision-making basis for allocating resources most effectively.

Before going into the details of the application of ZBB, it would be useful to present some basic definitions of concepts that will be used later in this monograph.

BASIC DEFINITIONS

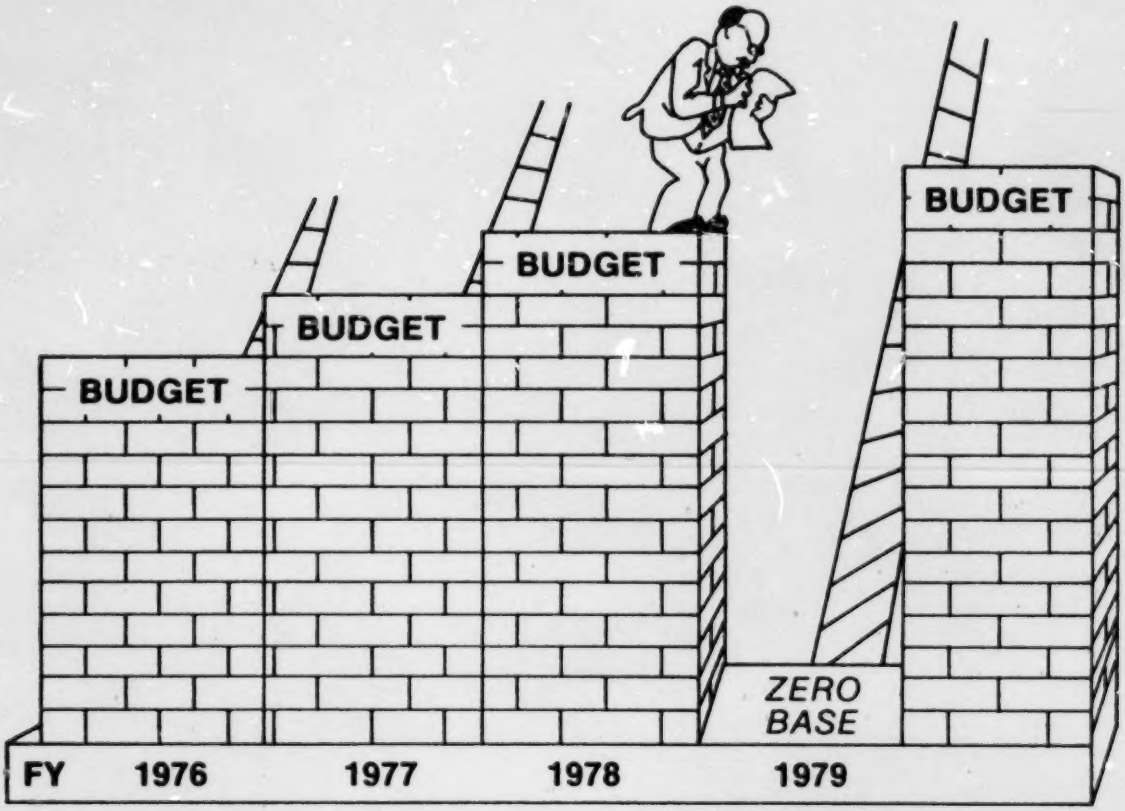
Consolidated Decision Packages. Packages prepared at higher management levels that summarize and supplement information contained in decision packages received from lower levels in the institution. Consolidated packages may involve new programs and priorities or the deletion of packages from below.

Cost Center. A unit or grouping of activities in an institution's operations for which costs are collected and expenditures planned.

Decision Packages. A document in the ZBB system that specifies the cost and analysis of an alternative approach to funding a Decision Unit. The key to effective ZBB application is in clearly delineating various decision packages and in selecting the best one for each area, based on institutional objectives and priorities. There are

TABLE I.4

TRADITIONAL VS. ZERO-BASE BUDGETING



usually at least three decision packages developed for every Decision Unit. Decision packages reflect either different funding levels or alternative ways of carrying out specified objectives.

Decision Unit. An element within a budget around which decision packages can be developed. A Decision Unit can be a program, activity, cost center, or subunit of a budget which lends itself to ZBB analysis. A list of possible Decision Units for higher education is found in *Appendix A.*

Goal. A statement of a single purpose which is a desired accomplishment and derives from the basic mission statement of an institution. A goal is broad, somewhat "motherhoodish," and usually not quantifiable. It is timeless in that it generally has no specific date by which it is to be completed. A goal is a broad statement from which specific objectives can be derived.

Incremental Budgeting. The process by which a new budget is put together by adding increments to last year's budget. These increments are usually aimed at inflation and new programs. Decremental budgeting is the reverse of this process, where the budget is reduced by a set factor, usually a percentage.

Instruction by Objectives (IBO). The process of teaching through the use of clearly stated quantifiable behavioral objectives.

Line-Item Budgeting. Developing a budget around line-item expenditures, such as salaries, supplies, equipment, travel, etc.

Management Information System (MIS). An organized method of providing administrators and others in the management process with information needed for decisions, when it is needed, and in a form that aids understanding and stimulates action.

Management by Objectives (MBO). A system of managing or administering an organization which places the major focus on fulfilling specific objectives and achieving specified results. In this system, an institution clearly states its main goals and objectives. Program goals and objectives are derived from the institutional process and then each administrator or staff member develops concise, quantifiable objectives which he or she agrees to complete, usually within a twelve-month time frame. The system focuses on planning, directing, and controlling for specified results. MBO differs from other, older management systems in that it stresses objectives and results rather than activities and functions.

Mission Statement. A broad, general statement, usually no more than a paragraph or two long, which sets the parameters for an organization and summarizes the basic purposes for which an institution or program exists.

Objective. A clear, concise, specific statement of one intended accomplishment in quantifiable terms. Objectives derive from mission statements and goals and lead to the accomplishment of these elements. An objective may be short term (one year or less) or long term (over a year – usually five or ten years). A good objective is quantifiable so that there can be no question whether or not it has been met within the specified time period.

Planning, Programming, Budgeting Evaluation System (PPBES). The development of a budget by functional programs and the allocation of resources according to program objectives. Program budgets are usually made on a one- and five-year basis, and should have an evaluation component to determine whether the program objectives are actually accomplished. Zero-Base Budgeting supplements PPBES and serves to assist in delineating and selecting alternate approaches to funding the programs. ZBB effectively fits into the planning phase of a PPBE System.

Program. The composition of all work and related supporting activities undertaken to achieve a ***common set*** of end objectives.

Quarterly Review. In the MBO system, periodic reviews are required by a manager and his subordinates. At these reviews (usually on a quarterly basis), objectives are reviewed for progress and validity and an opportunity is provided to delete or modify objectives if changing circumstances so warrant.

Sunset Legislation. Laws under which programs or other budgetary units automatically cease to exist after a specified date. Unless they are formally reviewed and authorized to continue, the programs are eliminated. This is a relatively new legislative technique to identify and remove outdated programs and related expenditures.

Systems Approach. A logical, rational procedure for designing a progression of interrelated components designed to function as a whole in achieving a predetermined objective(s). The methodology includes specification of objectives in measurable terms, development of possible approaches, selection of appropriate means to achieve the objectives, integration of approaches into a unified system, and evaluation of the effectiveness of the system in attaining the objectives. MBO and PPBES are examples of systems approaches.

Zero-Base Budgeting. A budget planning process based on the assumption that each expenditure must be justified. Each year, the process starts with a "zero base," meaning that no past activities or expenditures are taken for granted. Each activity program or operating unit must justify its existence as well as its request for funds. The process focuses on establishing decision packages and the selection of the best packages based on institutional objectives and priorities. According to Peter Phyrr, two elements are essential to have a ZBB system: (1) managers must be required to submit decision packages at funding levels below current expenditures; and (2) they should be given the option of ranking new programs at a higher priority level than older programs.

II. ADVANTAGES AND DISADVANTAGES OF ZERO-BASE BUDGETING

Implementing Zero-Base Budgeting is a very difficult task, as we shall discuss in Chapter III. Yet, if it is properly implemented, the following advantages should be attained.

ADVANTAGES

- ***Produces Annual Program and Expenditure Review.*** Each program, activity, or operating unit and all its expenditures are reviewed in depth each year (or however often ZBB is used), and the most efficient and effective approaches to accomplishing the stated objectives are funded. The process replaces the old approach to budgeting, which focused on adding (or deleting) a percentage of the last year's budget.

- ***Tradition Cannot Justify Budget.*** An institution prevents history, tradition, or custom from becoming the justification for maintaining certain expenditures.

- ***Can Save Money.*** An institution can save money by more easily identifying and eliminating vestigial and outdated methods and programs. ZBB also allows for more effective identification of the low cost alternative methods for providing services. A "zero base" is used for planning rather than last year's budget, which usually contains programs and expenditures that are outdated.

- ***Develops Cost-Conscious Staff.*** Each staff member becomes more cost-conscious, cost-benefit sensitive, and involved in fiscal planning. Each is forced, in many cases, to develop workload measures, program performance instructions, and outcome measures.

- ***Better Staff Morale.*** An institution can develop higher staff morale as an open system of budgeting is used with expenditures and programs openly and rationally justified.

- ***Reduces Empire Building.*** It is extremely difficult for empire building to take place within the processes and procedures of a ZBB system, as expenditures undergo open and intense scrutiny every time it is used. Campus politics are also reduced as a factor in determining budget allocations.

- ***Easier to Add New Approaches.*** The addition of new programs and approaches is more easily accomplished using ZBB, and an institution can more easily adapt to changing conditions. It is easier to add new programs by reducing current costs, allocating new funds, or through minimum funding of the new programs.

- ***More Effective Remediation of Staff Weaknesses.*** An institution can more easily identify and remediate weak financial planning among the staff. It is strongly urged that each college provide professional development opportunities for the staff, not only to acquaint it with ZBB, but to remediate weaknesses uncovered in the implementing process.

- *Clearer Relation of Budget to Institutional Objectives.* It is easier for an institution to allocate resources in accordance with institutional objectives and priorities.

- *Better Basis for Adjusting to Changing Circumstances.* The list of ranked decision packages can serve as a basis for further planning and budget adjustments that may be required because of changing circumstances.

- *Increases Professional Development.* The whole ZBB process is a professional development activity which should increase the skills and abilities of the institution's managers and make them more effective.

- *Focuses on Reducing Programs.* ZBB forces managers to consider program reductions, and each expenditure must be justified on the basis of institutional objectives and priorities.

- *Greater Work Satisfaction from Observable Results.* The ZBB system provides concrete feedback from the planning and budgeting process. This, in turn, provides the administrator with a clear indication of how he or she is doing. Positive results give far greater satisfaction from administrative work than is possible under the traditional budgeting structures.

- *Increases Communication.* As mentioned earlier, there is an increase of communication on significant fiscal issues throughout the organization. This aids morale and leads to greater understanding, which in turn helps to develop a unified effort in achieving the institution's goals and objectives.

- *Better Top Management Decisions.* ZBB gives top management a better view of the total organization from the standpoint of resource allocation, the various alternatives possible, and their likely impact on institutional objectives. The process, therefore, allows top-level management greater flexibility as they see the various alternatives. They can then more easily make the broad policy decisions needed to guide the institution.

- *Better Budget Justification.* Institutions will find that budget reviews and approvals by boards, local and state governmental agencies, and constituents will likely be less troublesome if a well thought out ZBB system is used. The reviewers are likely to have greater confidence and trust in the budget if they know that the processes and problems associated with ZBB were used.

DISADVANTAGES

In addition to the advantages of ZBB, there are also some disadvantages that may accrue in developing and implementing an effective system.

- *Increased Paperwork.* To properly implement ZBB, decision packages need be developed, and an increase in the paperwork associated with this is inevitable. If this is effectively done, however, it may reduce some of the typical budget repetitions and, therefore, save paperwork from the older budget process. Many colleges and universities go through two or three budget repetitions before they get a final budget developed in the more traditional approaches. This should be reduced to one or two at the most under ZBB.

- ***Increased Staff Time.*** ZBB, particularly in the first time through, usually takes longer than the older budget process. It can usually be accomplished in a three- to four-month period the first time it is used, with average staff time devoted to it. Some additional time is needed to develop the process, to educate the staff to the concept, and to implement the processes the first time they are used.

- ***Difficulty in Developing and Ranking Decision Units and Packages.*** It is difficult to define and delineate Decision Units and packages and then to rank and select them properly. This is the heart of the process, but it is difficult to do effectively.

- ***Little Motivation for Staff.*** Unless an institution finds some way of rewarding the staff who do an effective job in ZBB, there will be little motivation for them to function properly in the system and they will be tempted to play games with it. Most college and university budgeting systems actually penalize administrators who save money and increase their efficiency. Generally, the money and staff saved in one area simply is allocated to some other program or area. Unless this type of motivational pattern is changed, it is unlikely that ZBB, or any other budget system, will have any positive or lasting effects.

In summary, there are both advantages and disadvantages associated with using ZBB. The advantages far outweigh the disadvantages, and if the proper conditions are present in an institution (see Chapter V), a successful implementation is likely and should be used. Some of the disadvantages listed above can be reduced or eliminated and some will pertain only in the initial year of implementation.

III. IMPLEMENTING ZERO-BASE BUDGETING

Zero-Base Budgeting is a simple concept to understand, yet it is difficult to implement an effective ZBB system complete with forms, processes, and procedures that accomplishes the intended purposes. It is easy to say that next year's budget will start with a "zero base," and that each and every expenditure must be explained and justified. But the distance between stating this and successfully implementing it in highly complex institutions of higher education (most of which are still not committed to striving for common objectives, nor oriented to stressing effective management) is considerable.

Table III.1 outlines the steps used in the usual ZBB process. Later chapters will focus on the major elements of an ongoing system. The remainder of this chapter will discuss beginning a ZBB system in an institution for the first time.

The following are recommendations which, if followed, will permit a college to maximize its chances of success with ZBB.

1. ***Develop an Implementing Plan and Strategy.*** Each institution should study its internal situation and then carefully design a timetable for implementing ZBB. *Table III.2* illustrates a simple Gantt Chart outline of the steps and timetable an institution may wish to follow. Such questions must be answered as: "Will we require ZBB every year, or only once every two to four years?" "Who will quarterback the process and be responsible for it?" "Who will make decisions on which Decision Units will be used?" "Who will be responsible for final decisions on which decision packages will be developed?" "Who will make the final decisions on priorities and selection of final decision packages to go into the final budget?" In other words, a carefully planned systems design effort must be undertaken.

2. ***Define and Diagram System.*** It is helpful if each system is diagrammed with decision points and time frames clearly laid out, so that everyone will be able to see how the system looks and will function. This process, when laid out, should cover all budget activities, including the final development and approval of the budget.

3. ***Design Proper Forms.*** Each institution is better off designing forms for decision packages and summary forms (such as for ranking packages) which fit into their current budget and accounting system and fit comfortably into their current systems and terminology.

4. ***Educate the Staff.*** Each college or university should develop materials and workshops which acquaint the staff with the ZBB concept and the processes, forms, and procedures which will be used by the institution to implement the concept.

5. ***Use Expert Help.*** The institution should use expert help, particularly in the initial implementation for Numbers 1, 2, 3, and 4 above. Such help may be available inside the college now, or may be secured from consultants outside the institution. Early reports from the Federal sector indicate that the most successful application is in an agency that relies heavily on expert outside help.

6. ***Use the First Time Through as a Trial and "Debugging" Exercise.*** The staff should be aware that while you are using ZBB to develop the final budget, nevertheless, the first time through is a trial period, after which it will be solicited for comments and suggestions for improving the system.

TABLE III.1
BASIC ANNUAL STEPS IN USING ZBB

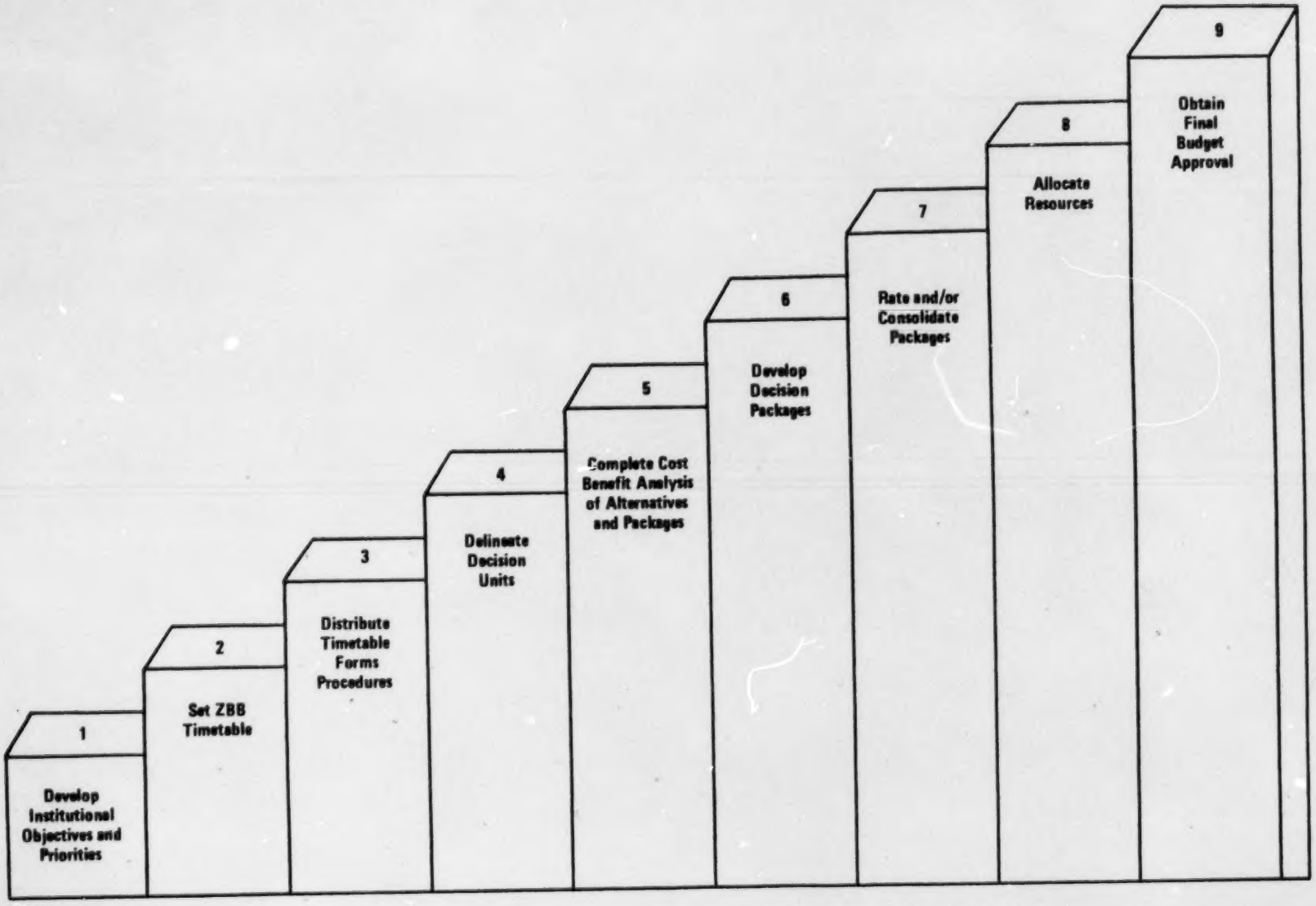
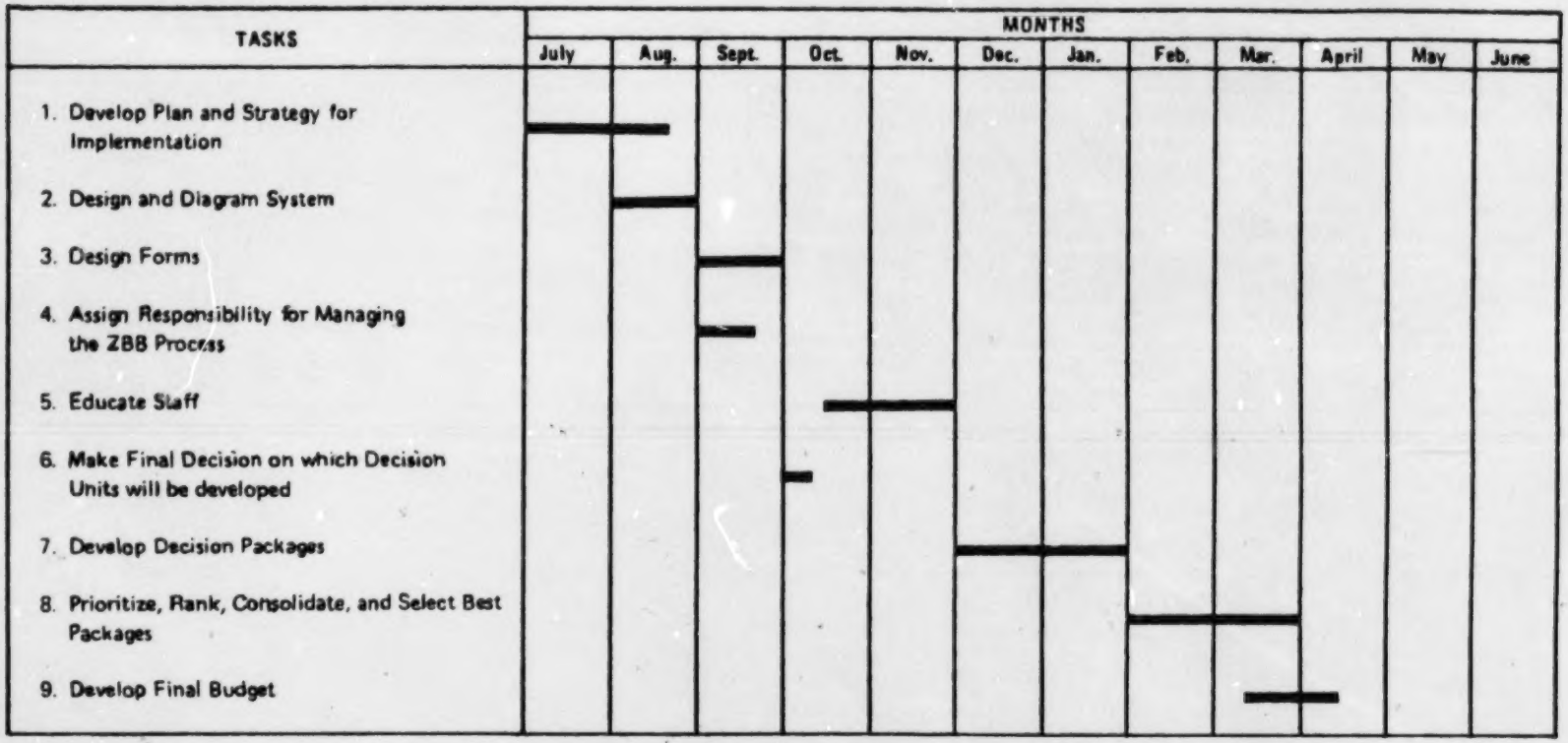


TABLE III.2
SAMPLE SCHEDULE FOR IMPLEMENTING ZERO-BASE BUDGETING*



* This is a sample based on a first-time application of ZBB and our assumption that the budget for the next fiscal year should be completed and ready for board study and approval by April 1st. Dates can be modified to fit each institution's unique situation.

7. ***Provide Resources for Cost Estimating and Data Development.*** The heart of a good ZBB system focuses on identifying alternative methods for carrying out activities and then accurately costing out these alternatives. Most staff members will need help and some basic "rules of thumb" to use in costing out new programs and approaches. This assistance must be provided and is probably best provided by assigning someone in the business office with this type of expertise to consult with staff members as they develop their decision packages. At least one workshop should focus on this topic, too.

8. ***Allow Proper Time for Successful Implementation.*** ZBB will take more time the first time through. Schedule adequate time so that the staff can implement it in a relaxed, unhurried environment. Depending on the complexity of the institution, how many decision packages you use, and whether you use ZBB throughout the institution or in one area, the time to complete should range from two to four months once adequate preparations have been made.

There are basically three areas where problems are likely to occur in the ZBB implementing process. The first is in the area of ***administrator attitudes.*** Doubts, fears, and resistance may develop. Numbers 1 and 4 above are designed to focus on these matters. Unless they are recognized and handled, the system could be seriously damaged before it gets started.

The second area in which problems may develop is in the ***decision package formulation.*** Problems of which Decision Units to use, how costs are established, and who makes the decisions on which alternatives to use for packages all can cause problems. Numbers 1, 2, 3, 4, and 6 above are particularly addressed to these problems.

The third area of problems relates to the ***final ranking and decision process.*** Who makes the decisions and who has the final voice needs to be clarified. The author firmly believes that ZBB can best function in a framework of participative management where subordinates, while not having a final veto on decisions, do have meaningful and effective input into decisions that affect them and that utilize their expertise.

As indicated above, the implementation of ZBB is a difficult process. All due care needs to be taken if a successful system is to be installed.

IV. DEVELOPING DECISION UNITS AND PACKAGES

The Decision Unit and decision package are the basic elements of a ZBB system. The decision package is the basic unit or "building block" of the process. As defined earlier, a Decision Unit is an element within a budget in which decision packages can be developed. It is a program, activity, function, or cost center which has a unity that allows it to be analyzed as a separate entity. (See *Table IV.1.*)

Examples of possible Decision Units in the academic area are: each course, faculty development, departments, "special academic chairs," development of new instructional technology, and summer sessions.

Examples in the student personnel area are: admissions, student records, financial aid, placement, counseling, and residence halls (each individually, if desired).

Examples in the business area are: accounting, purchasing, campus police, trust funds, new construction, and grounds maintenance. Further examples of Decision Units are found in *Appendix A.*

Decision Units will vary from institution to institution, and may vary within each college or university from year to year. Units may be created to focus attention on various functions. Decision Units are usually subunits of cost centers with two or more commonly aggregating to the cost center budget total.

Institutions will have difficulty in determining which Decision Units to use. If too many are developed, the ZBB system begins to strain under the paperwork, and difficulties arise in effectively prioritizing and analyzing the packages. On the other hand, if too few Decision Units are identified, then the micro-budget analysis is diminished, the chance to uncover savings is reduced, and the ZBB effectiveness is minimized.

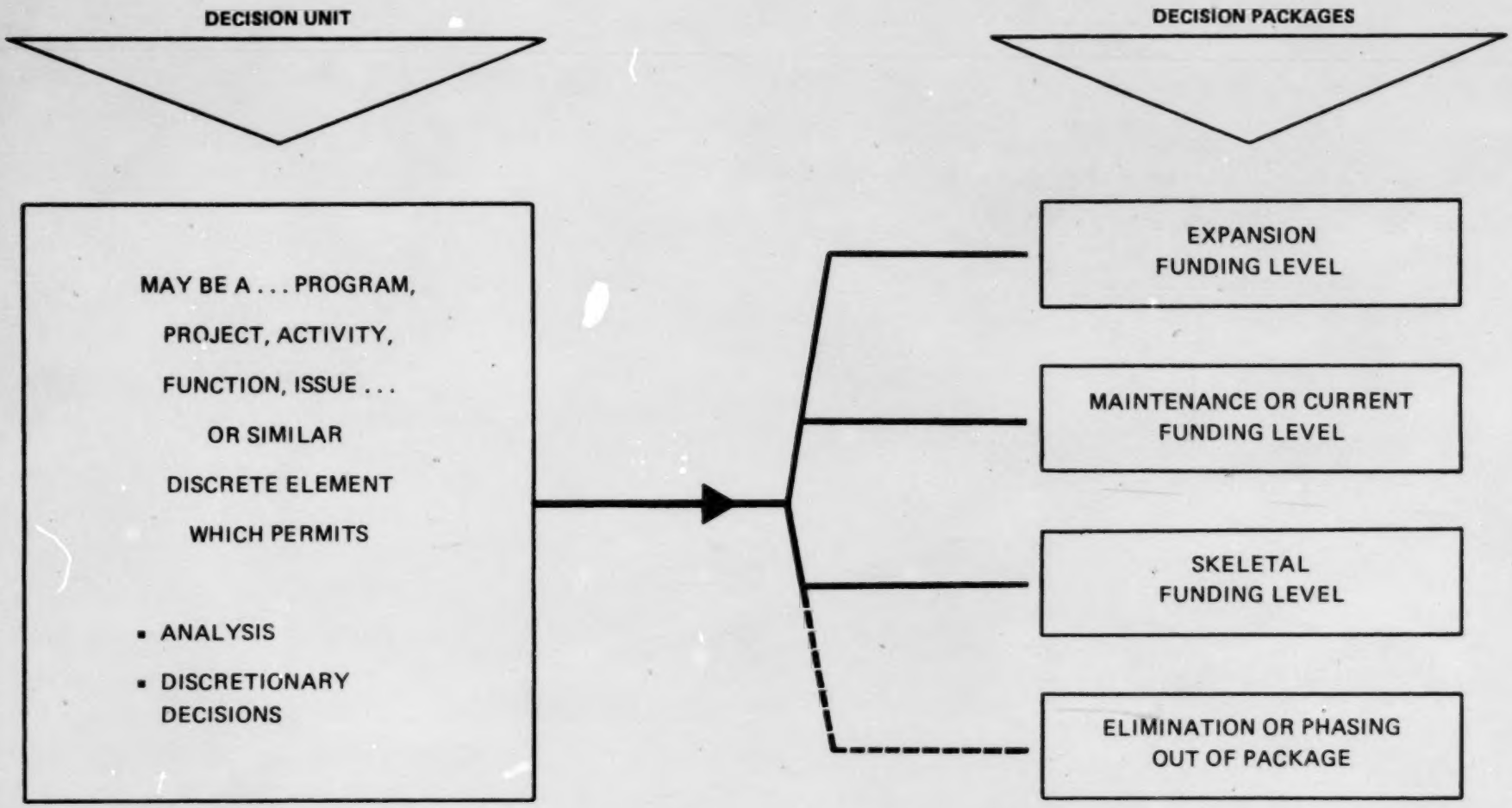
For example, a college that has an Office of Admissions and Records which is a separate cost center could conceivably use that office as one Decision Unit. This office would then develop decision packages which encompass all of their activities. On the other hand, within this office, the institution may wish to identify student records, registration, admissions, and student recruitment as separate Decision Units, each of which will develop decision packages.

Using the office as a total unit produces three decision packages, but using the four areas will produce at least twelve. The first approach is easier and less cumbersome, but the latter is more likely to produce a keener analysis of expenditures.

Institutions may wish to vary the number of Decision Units from year to year and even combine the approaches listed above. For example, the Office of Admissions and Records could be a Decision Unit each year except that once every three or four years the four smaller units would be used to produce a more detailed analysis.

The advantage of combining the approaches is that the process is simplified, yet the major benefits of ZBB can still be largely retained. ZBB is most effective the first time it is used; therefore, the above-mentioned alternatives tend to preserve the greatest benefits, while streamlining the process to a certain extent.

TABLE IV.1
DECISION UNITS AND PACKAGES



Once an institution clarifies and delineates its Decision Units, then it can proceed to develop its decision packages. *Tables IV.2* and *IV.3* at the end of this chapter illustrate this process. Forms need to be developed such as those found in *Appendix B*. Administrators can then proceed to cost out the various alternatives and packages.

It is desirable for the administrator to work closely with his or her supervisor when developing alternatives and to be mindful of the institutional objectives which hopefully have been previously set and published.

It is also essential at this time to provide assistance to the administrator in costing out the various packages. Someone in the business office should provide consulting help in this area. It is also helpful to provide some "rules of thumb" that can be used to cost out certain aspects of the packages. For example, what percentage can be added to salaries to cover fringe benefits, or what average percentage will be used to cover salary increases over the years that are projected in the future. With a few key guides such as these, some of which are, in effect, planning assumptions, the administrator can price out his or her packages.

The decision package is usually developed in three levels. For most colleges and universities, particularly where administrators cannot be rewarded effectively for outstanding budget work, it is better to ask that packages be developed in three basic areas, such as: minimal, maintenance, and desired. The Los Angeles Community College District uses the designations of skeletal, maintenance, and expansion.

It is also important in this process to consider the consequences of eliminating or phasing out an activity. Every Decision Unit must justify its existence each time the ZBB process is used. If an elimination or phasing out is to occur, a decision package should be developed that so states and budgets accordingly. (See Table IV.1.)

The skeletal level should connote a "bare-boned" base operation, below which the existence of the activity would be threatened. Some institutions prefer to state that as a rule the skeletal level should be a percentage of current year spending (e.g., 75% or 80% of the current year's budget). This has the value of forcing administrators to develop at least one package that is less than current expenditures by a significant amount. Without this provision, some administrators are likely to take the position that the minimum skeletal level is the current level of spending. This is particularly true in inflationary periods where to maintain current spending levels may actually mean decreasing services because inflationary pressures reduce the dollar value of the budget.

The mid-level, or whatever it is called, should be essentially a continuation of present operations or an average level of effort. The upper level should represent an enrichment and an enhancement of the present level of activity and/or effectiveness. Tables IV.1 and IV.3 illustrate this further, and use the designations skeletal, maintenance, and expansion.

When decision packages have been completed, they are entered into the budget decision-making process. Frequently, this involves the basic administrative structure, as well as budget committees.

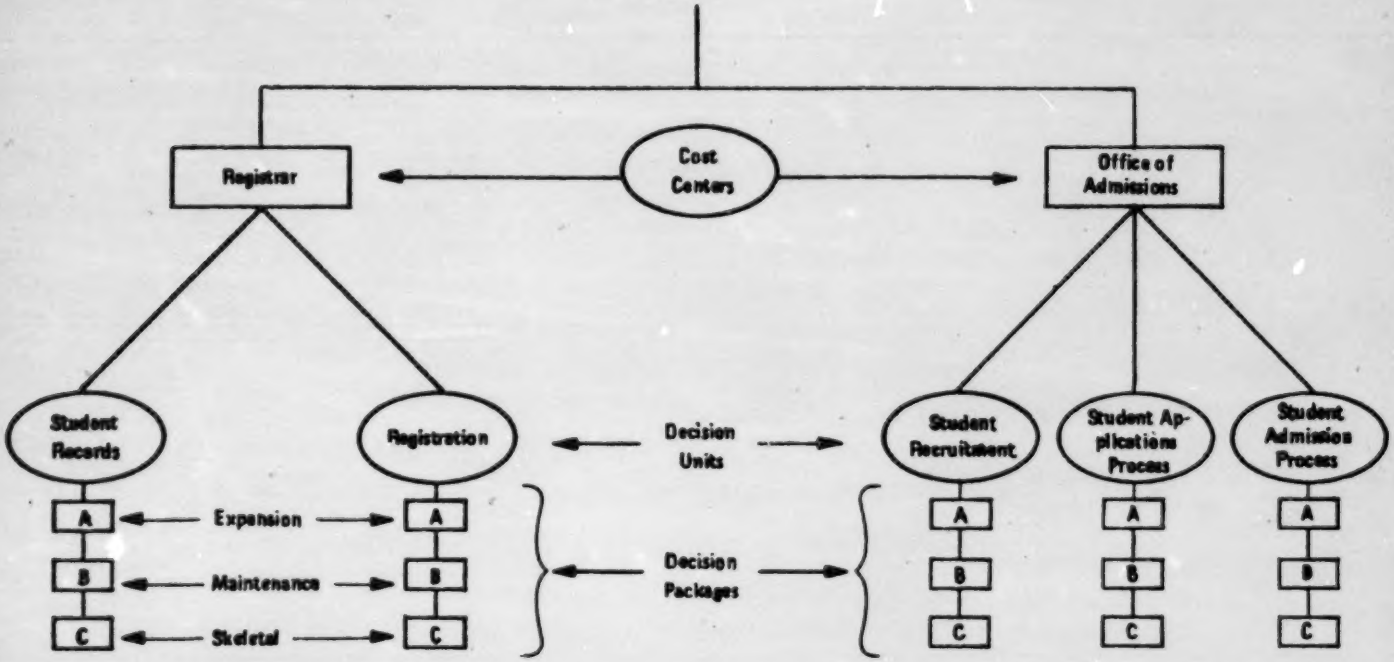
It is essential in this process to have institutional objectives and priorities against which to weigh the decisions on accepting or rejecting specific packages. If an effective MBO and PPBS is in place, then it will produce such objectives and priorities; if they are not in place, then the institution should develop a list of priorities for the next year as a bare minimum. Hopefully, administrators would also look into the future (at least five years) to give the decision makers some direction.

TABLE IV.2
TYPE DECISION PACKAGES

- ALTERNATIVE WAYS OF ACCOMPLISHING ACTION OR OBJECTIVE

- DIFFERENT FUNDING LEVELS FOR PERFORMING OPERATION

TABLE IV.3
EXAMPLES OF DECISION UNITS AND PACKAGES



For each Cost Center, a series of one or more Decision Units is established. This is determined by the basic functions or activities within each Cost Center. Following this, at least three decision packages are prepared, representing various levels of funding for that activity or function. The packages are then ranked or prioritized and sent through the organizational structure for final decision-making. These packages should take into account various alternatives for carrying out the activity as well as the consequences of eliminating the function.

If the administrative organizational structure is used for budget development, then the packages are fed up through the organization. At each level they are reviewed and recommendations sent forward. The ranking and prioritizing of the packages can easily be done on a form similar to that found in *Appendix B. Table IV.4* graphically illustrates how the Decision Units, cost centers, and decision packages might look in an institution.

Most institutions will use a budget committee of some type, even if it is advisory in nature, before the final budget is put together and the president makes final decisions. The decision packages may be presented to the budget committee and actually facilitate its reviewing of the possible expenditures.

A large institution should consider consolidating decision packages as they move through the system. The advantages of this are that it moves decision making lower in the organization or closer to "the action" and it reduces the paperwork and decision making at the executive levels of the institution. The disadvantage is that it prevents the top-level managers from seeing all the alternatives and all the possible decision packages.

Let us look at the consolidation process further by referring to Table IV.4. Cost Center E has three subcost centers reporting to it. These cost centers produce 18 decision packages. These 18 plus the three directly related to Cost Center E total 21 packages that this administrator must review. If this administrator reviews and prioritizes these packages and passes them on with recommendations, 21 packages are passed on to the supervisor in Cost Center B. If Cost Centers F and G do the same, the administrator in Cost Center B must review 51 packages. This process leads the president in Cost Center A to review 165 packages, which is a very difficult task. It is likely that this person would not have the expertise to make key judgments in the lowest level cost centers and packages and, therefore, would likely either accept the recommendations passed along or risk making poor and arbitrary judgments.

If consolidation were employed, the administrator at Cost Center B or E (or both) would be asked to consolidate the packages below into three major decision packages for their cost center (expansion, maintenance, skeletal). If Cost Centers E, F, and G did this, the administrator in Cost Center B would only have to review nine packages plus the three relating directly to that office. The review would be of 12 rather than 21. If B, C, and D consolidated packages at their level, the president would only review nine packages from below plus those from the staff positions reporting to this office. This obviously makes decision making easier; it eliminates a routine review of all 165 packages. There remains, however, the option of going all the way down in an area and reviewing the packages. This can be done in problem areas or where it is suspected that additional savings can be made.

It is also possible to vary the approach from year to year. For example, one year all the packages in the area of Cost Center B may be passed up for review while those in Cost Centers C and D are consolidated. The next year all of C's packages may be passed up and B's and D's consolidated, etc. This sets up on a rotating basis once every three years an in-depth review of each unit by the president or budget committee, depending on the type of process used.

In summary, the implementation of ZBB has many facets, and there are many ways of performing the system. Careful planning is needed and the best system for each institution must be carefully put into place, in order to insure success. Consequently, many ZBB systems fail. In Chapter V we will look at why this is so.

TABLE IV.4
PHASES AND DECISION POINTS IN ZBB PROCESS

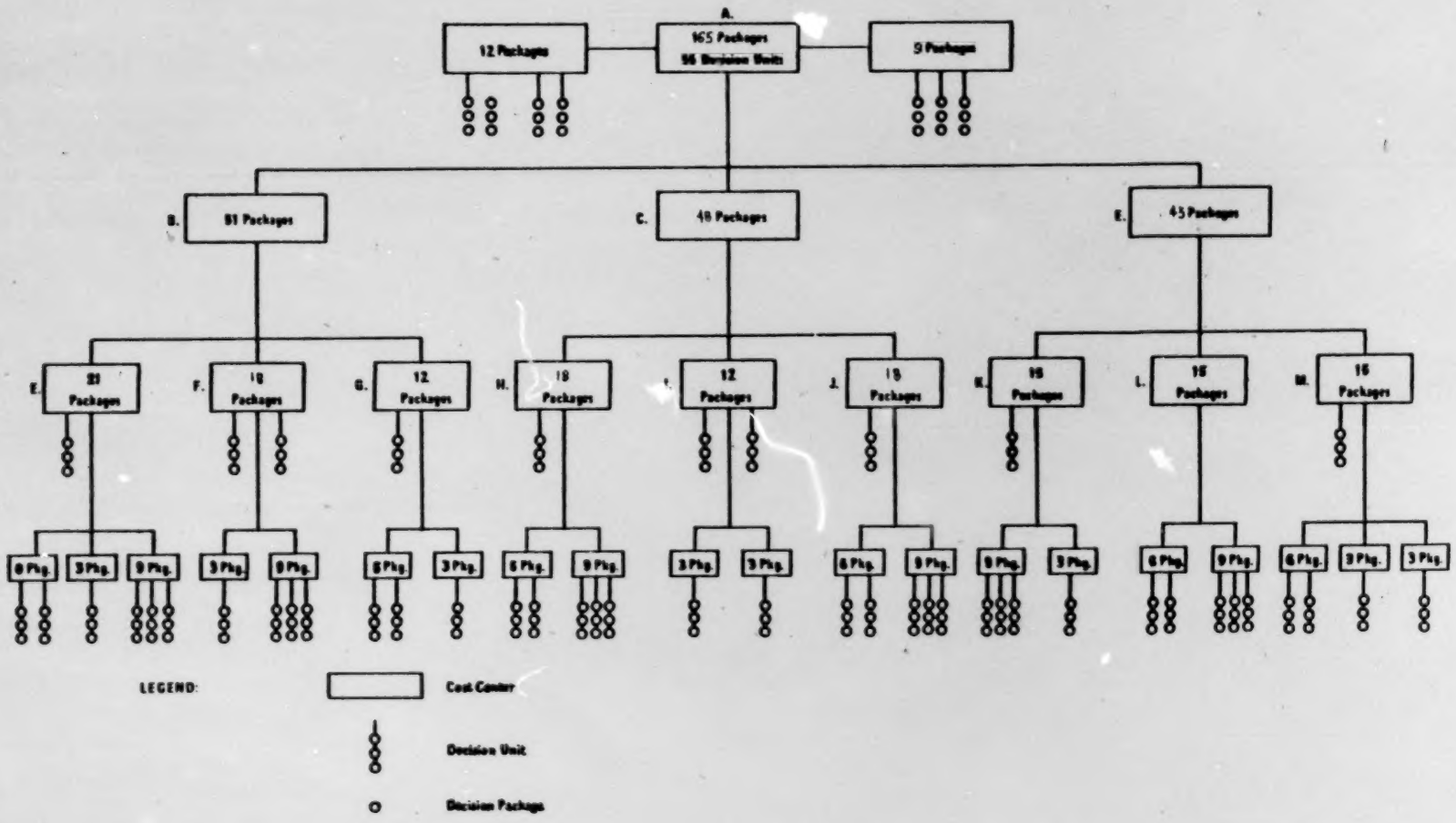
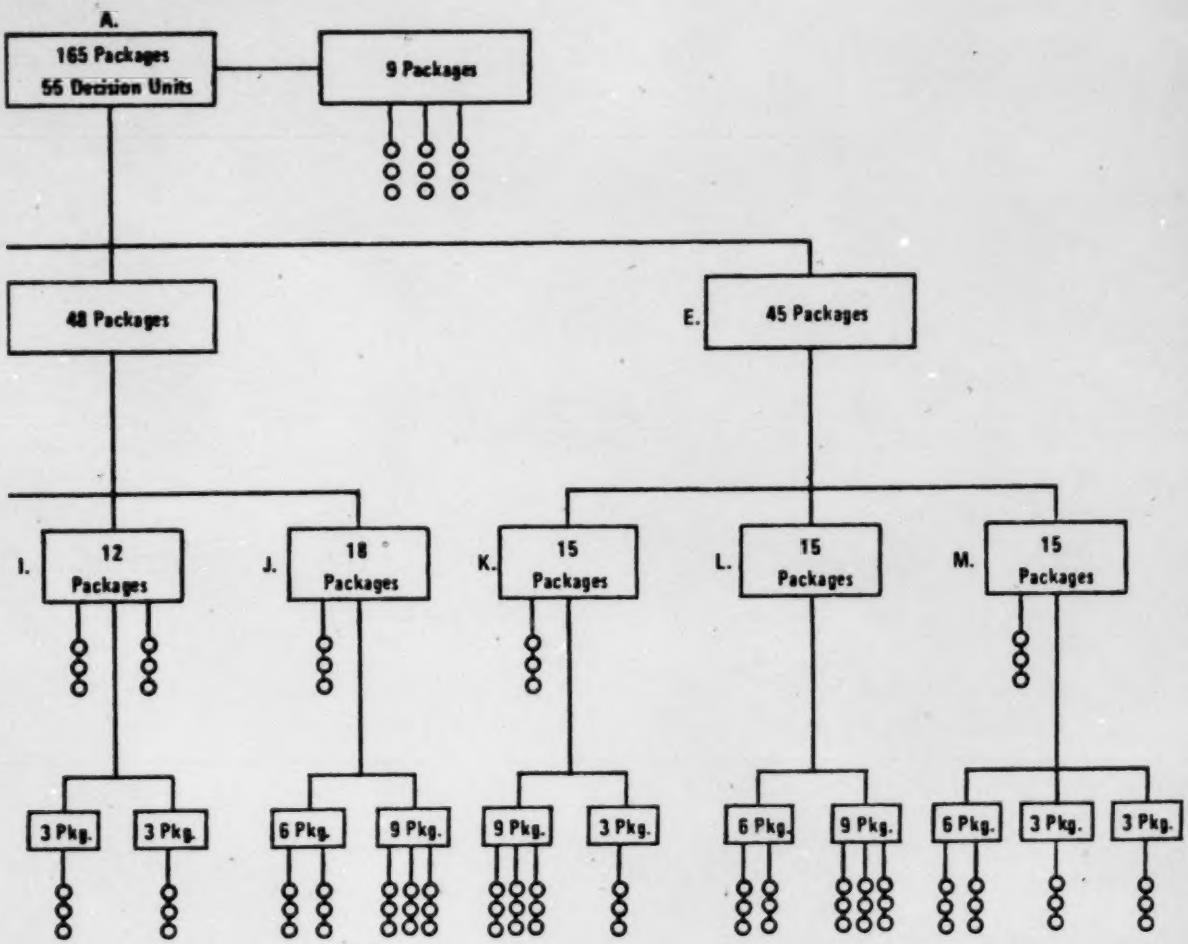


TABLE IV.4
DECISION POINTS IN ZBB PROCESS



V. REASONS WHY ZERO-BASE BUDGETING FAILS

Zero-Base Budgeting is an easier concept to understand than to successfully implement. It requires great care to effectively employ. There are more reasons why ZBB is likely to fail than there are factors working for its successful implementation.

Below is a list of reasons why ZBB often fails.

1. ***Lack of Support from the Top.*** Crucial to the implementation is the support and understanding of the top-level administration, particularly the president or chancellor. If he or she does not communicate the importance of the system and does not link ZBB implementation to whatever reward and punishment system is in effect at the institution, ZBB is likely to fail. As was mentioned earlier, ZBB requires extra work and it may threaten some administrators when they have to produce decision packages that reduce their staffs and expenditures (equated as power by some). Administrators will not be serious about ZBB without a good reason. Top-level management can provide the motivation and demonstrate, by effective use of ZBB, that it can significantly and positively impact on institutional performance.

2. ***Lack of Time to Implement.*** As noted in Chapter III, ZBB requires adequate time to implement it. Extra paper work and time to learn the system are required. An institution that is not ready to devote the time necessary is apt to fail with ZBB, or, at its best, to achieve only a superficial implementation which contains few real benefits.

3. ***The assumption that Current Methods are Optimal and Cannot be Improved.*** Strangely enough, in spite of all evidence to the contrary, some educators believe that the way they are currently doing things is nearly perfect and cannot be improved. This attitude will kill any attempts to improve old and add new systems, including ZBB.

4. ***Attempts to Implement ZBB Overnight.*** ZBB requires time, effort, and extensive preparation if it is to succeed. The Time-Phased Plan of Action in Chapter III (Table III.2), which lays out an eight- to nine-month implementation plan, is about as fast as this process can be carried out. To attempt to "crash" the installation of a system can significantly handicap any implementation. If negative attitudes are present in the administrative staff that must be overcome first, the process may take even longer to implement. One caution – go slowly and do not try to force the system too fast. Administrators who strongly oppose it can play games with it and strip it of much of its value. They can do this primarily by failing to do effective work in developing the decision packages.

5. ***A Paper Mill is Created.*** Keep the forms and procedures simple. If exotic "bells and whistles" are added to the system in the design of forms and processes, the system may become so cumbersome that it becomes an end in itself. Administrators may also spend so much time reading manuals and trying to understand the system that they lose sight of their main tasks. Elaborate forms asking for great details on plans for carrying out various alternatives and decision package elements will probably kill an effective ZBB implementation. This may cause ZBB to become an end in itself rather than a means to an end. If this is done, ZBB itself will become a major problem, perhaps a "scapegoat" for continued poor management.

6. ***Omission of an Educational Component.*** It is essential that the staff be educated fully in the theory and rationale for ZBB, as well as in the processes and procedures to be used in each institution. If hostile attitudes and resistance are present, they need to be neutralized before the implementation goes forward. Staff development workshops, seminars, readings, and tutorials may be used to assist in the educational process.

7. ***Lack of Cost Estimation Assistance and Individual Assistance.*** Many administrators will need help in developing their decision packages and in following the ZBB processes, particularly the first time through. Someone should be trained and prepared to provide this assistance. If it is not easily available, frustrations will build up. The system will suffer from lowered staff morale and effort.

8. ***Lack of Clear Decision-Making Structure.*** How the decision packages and alternatives will be handled in the institutional decision-making processes should be made crystal clear. The decision process should be diagrammed and clear. If the staff does not know who is making these decisions, or what the process is, they will likely lose confidence in the system and play games with their submission of material. The staff particularly needs to know how they fit into the process and what impact their recommendations will be likely to have.

9. ***Failure to Reward Those Who Increase Efficiency.*** The whole matter of motivation is critical. This issue was touched upon in Chapter I and will be dealt with further in the next chapter. Without rewarding administrators or faculty who save money and who find more efficient ways of performing their activities, there is no real motivation for using ZBB effectively. As a matter of fact, using ZBB without an effective motivational structure will simply perpetuate "playing games" with the whole budget process. Most current rewards go to those who receive more staff and money in their budgets. Rewards should go to those who are the most efficient and effective.

10. ***Implementation is Attempted in an Unhealthy Environment.*** If an institution has low staff morale or major internal problems exist, do not try to implement ZBB. Deal with the "health" problems of the institution first. If ZBB implementation is attempted in an unhealthy environment, it will simply get caught in the "cross-fire" and fail. It is also unwise to implement the system if an institution is without a full-time or permanent president. Wait until the new person is in place and then go forward, but only if this is something the new chief executive wants, will use, and will support with the full force of the top office.

11. ***Using ZBB in a Highly Political Environment.*** If an institution is highly political, viz., major decisions are made more on the basis of power, self-interest, and political forces inside and outside the institution, then forget ZBB. ZBB is a management tool for use by professional managers who are basically motivated by a team relationship to improve institutional performance. If the institutional decision-making processes are significantly affected by arbitrary judgments rendered by self-serving political elements, ZBB will be a waste of time, an exercise in futility, which will diminish staff morale as they see political judgments supersede correct professional decisions.

12. ***Failing to Link ZBB to Institutional Objectives and Priorities.*** ZBB provides a multitude of variables and alternatives for decision making. Unless there is a clear framework of objectives and priorities in the institution for selecting the best decision packages, the process is likely to produce more frustration than help. A good PPB or MBO system is essential if ZBB is to work. Alternatively, institutional goals and objectives can be linked to the ZBB system as an extension of the system.

13. ***Developing Too Complex a System.*** If ZBB is too complex, it will not work. If there are too many decision points and committees involved, it will render the process so tedious and difficult to use that people will not be willing to use it on an annual basis. It has to be simple, concise, and practical, or it will fall by the wayside.

14. ***Failing to Follow Procedures and Timetables.*** Once the system is designed and communicated, all involved should be expected to meet deadlines and correctly complete the forms and procedures. Failure to do so should result in proper penalties. Without this the system can be eroded by a few who do not like it and prefer to try to undermine it with inactivity.

VI. ZERO-BASE BUDGETING AND PERSONNEL-ORIENTED BUDGETS

Zero-Base Budgeting must impact on the total budget. Since the largest expenditures for most colleges relate to salaries, this area needs special attention. The question was recently raised as to whether ZBB should affect personnel. The questioner's institution expended 85% of its budget on salaries. If ZBB did not impact on personnel, the total effects of its use would be limited to the 15 to 20% of most college and university budgets which are nonpersonnel related. This would seriously limit the value of ZBB and, in truth, prevent ZBB from being "zero-based."

It is axiomatic that the most difficult parts of a budget to deal with are those that relate to people and staffing. In most cases, colleges and universities would not simply fire people (even if they could) if programs or activities were eliminated. How, then, can ZBB be of any value where 60-95% of the budget includes people and their salaries, fringe benefits, and so forth?

The response to the above question is that the larger the percentage of the budget in salaries, the more difficult it is – but it is not impossible. The remainder of this chapter attempts to analyze this and suggest opportunities.

Essentially, there are four ways in which administrators, faculty, staff, and classified employees can be dealt with if, through the ZBB (or other system), the institution decides to eliminate a program or activity. First, a person can be terminated or released outright. Second, he can be transferred to another area where there is an opening or where he can be more effectively utilized. This approach may also include retraining or re-education for new responsibilities. Third, he may leave or be encouraged to resign in order to accept a more attractive employment opportunity outside the institution. The fourth is that the institution may encourage or promote early retirements, which may be in the best interests of the person and the institution.

In addition to these four areas, over which the college or university has some control, there is the natural attrition of resignations, deaths, pregnancies, or other factors leaving personnel openings, which can, in some cases, be used to provide the institution with the flexibility to adjust to needed personnel reductions.

Each of the above needs some further discussion.

1. *Terminations.* Most institutions will obviously hesitate to use this method except as a last resort. Humanistic concerns, possible lawsuits, tenure policies, union contracts, and other factors make this one of the least used methods of reducing personnel. It is most often used when financial conditions so deteriorate that retrenchment is essential to institutional survival. In most cases, an institution has the right to terminate employees if a program or activity is eliminated; however, the right is not often used.

   Termination is more humane if the institution goes out of its way to find the employees new positions, and even share in relocation costs if a change of areas is necessary. An institution may decide to pay fees for employment services and use their offices to relocate terminated staff. These actions, plus proper advanced notice to employees (usually three to six months, at a minimum), can take some of the "sting" out of the termination process. Termination leaves (with part or total pay for a short

period), termination pay, and other devices may relieve some of the problems, too. In short, the termination process can be used, though it is difficult at best. However, through various devices, the process can be more humane and less traumatic.

The above statements apply to terminations made because of program changes. Some institutions will occasionally terminate employees for incompetence or other just causes. While these terminations seldom, if ever, correlate with program modifications, when they occur they should be reviewed to see if they may provide the opportunity for the institution to deal more effectively with its personnel strategies, particularly in relation to Number 2, below. Terminations of this nature may also trigger the institution's review of the program through the ZBB methodology in order to possibly take advantage of the personnel vacancy.

In addition, institutions may wish to counsel terminated employees and even retrain some employees for jobs outside the institution. More will be said about this in the next section.

2. *Transfers.* Employees can be transferred to other areas within the institution if the activity they are a part of is eliminated or reduced in scope. This may be difficult and could involve morale problems if the transfer is to an area the employee dislikes or if it is to a lower-level position (perceived or real). On the other hand, a transfer may stimulate an employee with a new challenge and it could even be perceived as an upward move. If the transfer were to a new, highly visible activity, it could be personally and professionally very attractive. This process is more viable in a large institution. It does not reduce staff, but it does allow more effective use of staff and could lead to eliminating other costs associated with a discontinued activity. For example, an English teacher might become a full-time associate in the financial aid office while teaching one or two evenings or weekend classes in English for extra pay. A full-time English position is eliminated. There is a new challenge (perhaps more money), and still the opportunity to teach in the area of interest.

   It seems logical that colleges and universities could make themselves more flexible if they would become more involved in educating and upgrading their employees. Professional development programs which broaden employees, make them more versatile, and add skills, also provide the institution with flexibility in moving employees and in adapting to change.

   For example, a counselor who, through broadening experiences and further education, develops skills as a placement or student activities staff member not only expands his or her horizons (making promotion more likely), but, if the counseling program is suddenly reduced, there are other areas of the college to which he or she can be assigned permanently or temporarily while seeking other employment.

   Educators are notorious for promoting more education for everyone but themselves. Most colleges have very little money for in-service and professional development activities. This type of education is essential for staying relevant in a time of rapid change, and it also provides the institution with the type of flexibility mentioned above.

   A good professional development program might make promotional opportunities outside the institution more accessible to employees. This is not only negative; a reasonable turnover of employees is good in the sense that it allows new blood and new ideas to come into an institution. It is only when excessive turnover due to management problems, low pay, or other factors that might seriously and negatively affect operations occur that this is detrimental.

In summary, transferring people inside an institution can be accomplished when activities are reduced or eliminated and, if carefully planned, it can be done to the benefit of both the employee and the institution.

3. ***Resignations.*** There are some ways in which an institution can promote timely resignations. An employee might be promised some special training and help in relocating in another area or profession. Peter Drucker, the eminent management consultant, has recently recommended that higher education seriously consider retraining some of the nonproductive or mediocre scholars so that they can get into more productive positions in other professions. His suggestion provides opportunities in a tight job market for the employment of younger scholars who would infuse our institutions with new blood and fresh ideas.

   The same process recommended by Peter Drucker could be used to encourage faculty or administrators in activities that are being eliminated to leave the institution for a new, and, hopefully, more challenging professional position. If this process is coupled with employment assistance, it might encourage some productive mid-career shifts that could be exciting for staff members. A large college or university might give free tuition or other benefits to encourage staff to train further for positions outside the institution.

   Cash bonuses or loans to stimulate a staff member to go into business might be considered to encourage a timely resignation if this is legal and attractive to the individual.

   Terminal sabbatical leaves at full or partial salary might also be offered. These could be attractive to some staff, particularly if they want to retool, regroup, and change positions.

4. ***Early Retirements.*** Most of the inducements above can also be used in one form or another to encourage early retirements. Some staff members would be delighted to leave early for a variety of reasons, particularly if they have something to gain. If early retirement reduces benefits, the difference might be made up by the institution or by the promise of part-time teaching or other assignments.

In addition to the four basic ways in which our colleges can shift or part company with employees, the institution can also take advantage of natural attrition among the staff. This attrition can run as high as 15 to 20% in some organizations (even higher if serious internal problems exist). Resignations, deaths, retirements, pregnancies, and other factors cause some attrition in the staff. An institution can use these circumstances to review (if they do not do so every year) the activity or program with ZBB procedures. If they find that a reduction or elimination of the program is desirable, they will have fewer personnel problems to deal with. As a matter of policy, it is not a bad idea for every institution to review formally, every position that becomes vacant to ensure that before it is refilled, it is indeed needed and not just a vestige of the past.

There are many ways to deal effectively and creatively with people problems. Employees themselves can come up with other suggestions. As a matter of fact, many of the solutions can be to the benefit of the employee as well as the institution.

One additional and important point needs to be made. The institution that looks ahead three to five years and plans carefully is in a much better position to deal with people problems and opportunities. Retirements can be anticipated, program reviews scheduled to coincide with natural vacancies, programs phased in or out, retraining and transfers

planned carefully, and so forth. The institution that tries to deal with this on a year-to-year basis has a much more difficult time. Used most effectively, ZBB demands projections of at least three years and should coincide with the more commonly used five-year cycle.

In summary, the fact that most institutions have budgets that are heavily weighted with salaries should not eliminate the possibility of effectively using ZBB. It can, in effect, be used and the people problems can even become opportunities to assist staff members to accomplish new objectives.

VII. SUMMARY AND CONCLUSIONS

The following are summary comments about ZBB which will help the reader clarify some of the issues involved in a ZBB system.

ZBB is a planning and budget development system rather than the budget itself. A ZBB system, properly implemented, encompasses the planning that should go into the processes that precede the development of a final budget. It is a planning process in the sense that, if properly used, the institution studies in a methodical way the various alternatives to accomplish its objectives, as well as the many options available for funding needed activities. The ZBB process must be linked to clearly stated institutional objectives and priorities; otherwise there is a great risk that once the alternative methods and decision packages have been developed, the final decisions will be made arbitrarily and without regard to institutional direction. If the latter is going to be the case, an institution need not bother going through the ZBB process. It would just be cosmetic.

Motivation is the key. This matter was touched on earlier, but should be elaborated. The typical pressures and motivations in institutional budget development and expenditures are just the opposite of what they should be. Because we generally equate large staffs and expenditures with power and status, it is a truism that an administrator who can increase his or her staff and budget can make gains in these factors. Empire building is a common phenomenon in varying degrees in most institutions.

C. Northcote Parkinson, in his book, ***Parkinson's Law and Other Studies in Administration,**** reveals that staff members will increase 5.75% per year in organizations, regardless of whether there is more or less work to do. Parkinson says this fact is based on two axioms: (1) An official wants to multiply subordinates, not rivals; and (2) Officials make work for each other. In short, there is automatic upward pressure on budgets, regardless of work load: new, more efficient technology, better ways of doing things, etc. Officials propose new subordinates because this means more influence and power. It may also mean less work for them. These are the basic factors in empire building and budgetary inflation.

If motivation pushes only in the direction of larger staffs and budgets, how can ZBB be effective? To be concise, in this instance ZBB cannot help much. ZBB can, however, make it more difficult for administrators to hide surplus funds and unnecessary staff, and it can make the game tougher for the empire builders to play, but little more.

The only answer to efficiency in education and government is to change the motivational direction. Aside from the few self-actualized, intrinsically motivated administrators who get their primary motivation from doing a job well, most administrators are influenced strongly by the external motivational factors noted earlier. The only way to effectively involve them in the budget process is to reward them for saving money and operating efficiently.

This can be done, but attitudes must change in public service organizations. Rewards must be given. Whether these rewards are bonuses, salary increases, professional development opportunities, vacations, trophies, promotions, public recognition, or other forms, they must outweigh the rewards of a larger empire, or the system will never work.

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*Parkinson, C. Northcote, ***Parkinson's Law and Other Studies in Administration.*** Ballantine Books, New York, 1964.

To illustrate: imagine what would happen if all the administrators in education and government were told that they could keep a bonus of 20% of all the money saved in their areas in next year's budget (without reducing program effectiveness). Our national economy could not stand the shock such change would bring.

If a college is ever going to harness all of its "brain power" to focus on efficiency in operation, either the institution must hire an entire staff of self-actualized, highly motivated, intrinsically driven, altruistic professionals, or it must find a way to reward the staff for efficient operations above and beyond the natural motivation to build power bases.

It can be effected, but it seldom has. Without the above, ZBB and a good administrative evaluation system can only take an institution so far; with the above, perhaps little more can be done. But ZBB tied to a good evaluation system are well worth attempting.

Eliminating people is a problem. Some observers assert that ZBB will not work very well in institutions of higher education because most of the budget is in salaries, and with tenure, unions, court suits, and so forth, reducing staffs is impossible. Since 70-90% of most budgets are people, they do have a point; however, a couple of other points need to be made.

First, ZBB focuses on the addition of new programs and staff, as well as current elements. A good ZBB system will help to prevent unnecessary additions and should slow the application of Parkinson's Law, if not eliminate its impact altogether.

Second, there are mechanisms for staff reduction that can be used. Retrenchment is an often-used word today, and it can be used – tenure and unions notwithstanding. Aside from retrenchment which does, after proper procedures are followed, allow dismissal of an employee, an institution can take advantage of early retirements, resignations, transfers, and other opportunities provided by natural staff "attrition." If an institution is effectively using ZBB, then it is in a far better position to take optimum advantage of chances to shift, reduce, or restructure personnel.

In short, the fact that college and university budgets are largely made up of salaries and people may be more an argument for using ZBB than against. The people problem can be more effectively analyzed and integrated into the resource allocation process *with* ZBB than without it.

Should ZBB be used every year? There are valid arguments pro and con. The arguments for using ZBB every year are:

1. *Different budget processes would be needed for "off years."*
2. *If circumstances change, there is no capability for modifying the budget without ZBB and the alternatives it presents.*
3. *Administrators may regress to "bad habits" in years ZBB is not used.*
4. *There is a chance for Parkinson's Law to apply in off years.*
5. *Programs that should be eliminated will continue without review.*
6. *Administrators improve their use of the system if it is used every year.*

Arguments for not using ZBB every year are:

1. *The greatest benefits accrue the first time ZBB is used and diminish somewhat thereafter. Using ZBB every three or four years may bring nearly the same benefits as using it every year.*

2. *The process is time-consuming.*

3. *There may be a tendency to get the same package every year.*

4. *Programs can be reviewed each year even without ZBB.*

5. *Programs and activities do not change much from year to year, and an occasional ZBB review is sufficient.*

Each institution will have to weigh the above factors for itself and make its own decision. The basic options are as follows:

1. *Use ZBB every year.*

2. *Use ZBB every three or four years.*

3. *Use ZBB in a revolving manner so that some part (Instruction, Student Personnel, Business, or their subdivisions) of the institution is using it each year and each area must use it once every three or four years.*

4. *Use ZBB every three to four years, but require its use during the intervening years in areas where new programs or activities are proposed or in Decision Units where special attention is desired for some reason.*

The "sunset concept" and ZBB. One of the concepts that is gaining in popularity in government and one which has some relevance for education is the "sunset concept." Basically, this principle is that any program or activity should only be approved for a fixed period of, say, three to five years. After this period, it is assumed that the program will terminate, unless its extension can be fully justified. In short, the program would have to go through the same kind of justification review and analysis that it did when it was first proposed. Of course, there would be the additional component of the careful analysis of what the program had accomplished since its inception.

Thus, all activities, programs, cost centers, or Decision Units would have the "sunset" on them, and a thorough review would occur. Unless this review dictated continuation, the program would automatically cease to exist or be replaced by one of significantly different make-up, which might better accomplish the original program objectives.

This "sunset" principle could be coupled with the processes and procedures of ZBB, as well as those of Program Audits. ZBB principles, used at the end of the approval period (sunset) would provide for a thorough review of the alternatives for meeting the objectives of the program. All college or university programs could be put on a three to four year approval basis so that a portion of them would be under intensive scrutiny each year.

Program Audits and ZBB. A growing trend in higher education is to have each program, activity, or Decision Unit undergo a Program Performance Audit every four or five years. These audits are usually conducted by persons outside the institution who are experts in the area under review. These reviews focus on efficiency and effectiveness and help the institution in self-evaluation.

Program Audits could easily and beneficially be combined with the "sunset" principle and ZBB to give an institution a powerful force for remaining relevant, efficient, and effective.

Program Audits could be timed to occur at the beginning of the last year before the "sunset" on the program. The audit could help determine: the relevance of the program; whether it should be continued; and, if continued, whether it should be significantly modified. The audit could provide alternatives and input into the ZBB process if it were used in conjunction with the audit. The new budget for the program, if it were to continue, could be in the ZBB framework.

The Program Audit, the "sunset" principle, and ZBB give an institution powerful accountability tools. Any board or public critics would be hard-pressed to fault an institution that was effectively using these tools. The relevance, efficiency, and effectiveness of every program would be under routine scrutiny and analysis, including objective analysis if the Program Audit is used.

The Zero-Base Budgeting system is consistent with Title III PME requirements. As noted earlier, ZBB is a part of the systems approach which fits together with the Planning, Management, and Evaluation (PME) requirements of the Title III program. It incorporates the resource allocation system into the total framework and sets the basis for the evaluation of the college's use of funds. It provides for cost benefit analysis and for the generation of useful data for top-level decision making. ZBB must fit into a broad MBO or PME framework, which produces college level goals, objectives, priorities, and performance evaluation measures.

CONCLUSION

ZBB is likely to be a buzz word in the years to come, as was the Planning, Programming, Budgeting System (PPBS) and Management by Objectives (MBO) before it. Having used ZBB in Georgia, President Carter will popularize the concept as he attempts to apply it to the Federal Government level.

If ZBB turns out like PPBS and MBO, it will be a failure as a system but a success as a concept, and a positive residue of thought and action will be left behind. PPBS came out of the Defense Department and was forced on the Federal bureaucracy. As a system it did not succeed, but a residual of program planning and evaluation took hold and still remains from this attempt to implement the system.

More recently MBO met the same fate. President Nixon's corporate advisors brought this concept to Washington and tried to employ it in management. The Federal bureaucracy "spit it up" as it had PPBS, but, again, with a residue of objectives setting and measurement of accomplishments. Pockets of full blown use of MBO remain.

The odds are that ZBB will not succeed as a total system. At least the scales are strongly against it. However, it is equally likely that the concept of frequent, perhaps annual, program review, alternate costing, and the routine linking of cost-benefits to broad objectives will remain and serve the government well.

Those in colleges under Title III would do well to review the ZBB concept and to use it, as appropriate in their PME system. As has been indicated, there are a wide variety of options for using ZBB, as there are with PPBS and MBO.

Educators must, if efficiency and effectiveness are to be cherished, sort out the unique ways in which they can weld the principles of these systems into an effective PME system. Each institution must develop a system around its uniqueness and should be reluctant to borrow a "package" that someone else is using or selling. The design of a unique system is an existing management challenge for this generation of administrators.

Peter Drucker has said that the greatest management challenge of this century is to manage public service organizations for *effectiveness*, and the greatest need is for a management system. PPBS, MBO, and ZBB offer elements of a management process that should be carefully studied and analyzed for the contributions they can make to our day-to-day operational systems.

In this publication we have attempted to give the reader a brief, concise overview of one of these systems – Zero-Base Budgeting. We have endeavored to acquaint the reader with the concept, its application, its advantages, and shortcomings, and to show how it can be implemented. The hope is that the reader will be able to separate fact from fiction and, if it is appropriate to the reader's situation, utilize the concept effectively.

APPENDIX A

CHECKLIST OF POSSIBLE DECISION UNITS

CHECKLIST OF POSSIBLE DECISION UNITS

INSTRUCTION

Divisions or Departments (Each Separately)
Courses (By Course or Similar Course Grouping)
Academic Administration
Instructional Support
"Special Academic Chairs"
Computer-Assisted Instruction
Faculty Development
Development of New Instructional Techniques
Continuing Education
Summer Session
Overseas Programs
Remedial or Developmental Education
Sabbatical Leaves
Off Campus Centers (By Center)

LEARNING RESOURCE CENTER

Administration
Cataloging
Photocopy and Microfilm
New Book Purchases
Subscriptions
General Service (Checkout, Reference, etc.)
Book Binding

STUDENT SERVICES

Admissions
Student Records
Registration
Financial Aid
Student Activities
Lecture-Concert Series
Counseling
Placement
Residence Halls
Intramurals
Intercollegiate Athletics
College Union
Testing and Evaluation
Health Services
Graduate Admissions
Student Orientation
Student Judicial Affairs
Student Recruitment

ADMINISTRATION

Office of the President
Executive Management
University Relations
Alumni Relations
College Information Services
Computer Services
Institutional Research
Legal Services
Professional Development
Board of Trustees
Endowment Management
Planning Coordination
Program Evaluation

BUSINESS AFFAIRS

Accounting
Purchasing
Building Maintenance
Grounds Maintenance
New Construction
Campus Police
Campus Fire Department
Trust Funds
Preventative Maintenance (Equipment)
Auxiliary Services (By Separate Service)
Personnel
Facilities Planning and Development
Cash Flow Management
Payroll
Controller's Office
Annual Audit
Fringe Benefits

APPENDIX B

SAMPLE FORMS FOR DECISION PACKAGES

ZBB FORM 1
DECISION PACKAGE

1. Decision Unit		2. Person Preparing	3. Priority Rating	4. Cost Center	
5. Package		**6. Date Prepared**	**7. No. of Similar Packages**	**8. Total Cost**	
Number	**Level**			**Last Year**	**This Package**

9. Objectives of this Package; Code to Higher Objectives (Use Other Side, If Necessary, for Items 9, 10, and 11)

10. Advantages/Disadvantages Over Other Packages

11. Consequences of Eliminating this Function or Activity

12. Cost Factors		This Year's Cost For Function	Estimated Costs			Year 1 Over Last Year	
Acct. No.	Function		Year 1	Year 2	Year 3	Increase	Decrease
	Professional Staff (No.)						
	Support Staff (No.)						
	Supplies						
	Equipment						
	Travel						
	Contractual Services						
	Miscellaneous						
	TOTAL						

ZBB FORM 2
DECISION PACKAGE SUMMARY FORM

Program Area:			Prepared By:				
Acct. No.	Rank of Package	Title of Decision Package	This Yr.'s Budgeted Costs	1st Year	2nd Year	3rd Year	% Increase/ Decrease Over this Year

APPENDIX C

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